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ALFALFA
WEEVIL

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U. S. DEPARTMENT OF AGRICULTURE

A, Larva feeding on tip of alfalfa plant. *B*, Area at ground level showing *a*, eggs in living and dead stems; *b*, pupa in cocoon; *c*, adult weevil. (*A* and *B*, about three times natural size.) Upper left shows general feeding damage and *d*, larvae. Lower right shows adults, *e*, in lower portions of plant (all natural size)



Picture Sheet No. 28

See other side for information on alfalfa weevil development and on control.

THE ALFALFA WEEVIL

(*Hypera postica*)

Larvae of the alfalfa weevil feed on the tips, leaves, and buds of alfalfa, and are particularly damaging to the first crop. After the first crop of alfalfa is cut, the larvae and adults feed heavily on the new shoots of the second crop. They can destroy the feed value of a hay crop, or prevent the profitable production of seed.

This insect occurs in Maryland, Delaware, New Jersey, Pennsylvania, Virginia, and West Virginia; in Nebraska and South Dakota; and in most Western States.

DEVELOPMENT

In most areas only one generation occurs in a growing season. The female weevils lay most of their eggs in March, April, and May. In warm weather the eggs hatch in 1 to 2 weeks. Larvae are most abundant from mid-April to early June, when the first alfalfa crop is approaching the bud stage. They feed 3 to 4 weeks. When full grown, larvae spin cocoons on or near the plants, and pupate 1 to 2 weeks. The adults, which emerge from the cocoons, mate in the fall or spring. They overwinter in or near alfalfa fields.

CONTROL . . . *Eastern States*

For best control, spray alfalfa in mid-April when the plants are 6 to 10 inches high. Apply heptachlor at the rate of 4 ounces per acre to destroy the small larvae.

CAUTION.—After treating the alfalfa, wait 7 days before cutting the crop or allowing livestock to graze on it.

CONTROL . . . *Western States*

Alfalfa for Seed.—Best control is obtained by an early-season chemical treatment that kills adult weevils before they lay many eggs. A single application of insecticide is made when the spring growth is $\frac{1}{2}$ inch to 2 inches high. If you spray, apply heptachlor or dieldrin at the rate of 4 ounces per acre. If you dust, apply heptachlor at the rate of 5 ounces per acre.

CAUTION.—After applying heptachlor at the 4-ounce-per-acre rate, wait 7 days before cutting the treated alfalfa or allowing livestock to graze on it; after applying at the 5-ounce-

per-acre rate, wait 10 days. After applying dieldrin, do not allow livestock to graze on the treated alfalfa until after the first cutting.

Any alfalfa weevil larvae that may be present on first-growth alfalfa left for seed will be destroyed by the insecticide used to control lygus bugs. DDT is applied when the plants are in the bud stage. Generally, it is applied at the rate of 2 pounds per acre in a spray or 3 pounds per acre in a dust.

CAUTION.—Do not feed DDT-treated alfalfa to dairy animals, animals being fattened for slaughter, or poultry.

Alfalfa for Hay.—Early-season chemical treatment to kill the adults, as described for seed crops, is the best control.

If you wait until May or June to start control measures, apply an insecticide to kill the larvae as soon as they are numerous on the plants. Spray or dust with one of the following insecticides at the per-acre rate indicated: Methoxychlor, 2 pounds; parathion, 4 ounces; aldrin, 2 ounces; lindane, 2 ounces; heptachlor, $\frac{3}{4}$ ounce.

CAUTION.—Do not allow animals to feed on alfalfa for 15 days after applying parathion, aldrin, or lindane, or for 3 days after applying heptachlor.

THE SPRAY OR DUST

To prepare a spray, buy an emulsifiable concentrate of the required insecticide and mix it with water. Use the amount of the concentrate necessary to obtain the recommended dosage. If you use a ground sprayer, you will need at least 6 gallons of spray per acre. If the application is made with an airplane, as little as 2 gallons of spray per acre can be used.

For dusting, use any strength of readymade dust sold in your area. Apply the amount necessary to obtain the recommended dosage.

CAUTION.—Most insecticides are poisons. Store insecticides where children and animals cannot reach them. Follow the directions for handling. Heed all warnings on the container label.

Parathion is particularly dangerous. It should be applied with power machines only. When handling it wear a gas mask or respirator of a type recommended by the U. S. Department of Agriculture.